

# CELLULAR TELEPHONE INTERACTIVE WAGERING SYSTEM

## Background of the Invention

5 This invention relates to interactive wagering, and more particularly, to interactive wagering using cellular telephones and handheld computing devices.

10 Wagering is a popular leisure activity. For example, many racing fans wager on events such as horse, dog, and harness racing. However, it may be inconvenient to attend racing events in person. Not all racing fans have sufficient time to visit racetracks as often as they would like and some fans have difficulties in obtaining suitable transportation to the track. Off-track betting establishments are available for fans who cannot attend racing events in person, but fans must still travel to the off-track betting establishments.

20 As a result, systems have been developed in which fans may place off-track wagers using personal computers connected to the Internet, standard telephones, or set-top boxes. These systems are generally satisfactory, but are sometimes not as portable or as easily accessible as desired.

It is therefore an object of the present invention to provide an interactive wagering system that allows users to place wagers or view race results or the like using cellular telephones or handheld  
5 computing devices.

#### Summary of the Invention

This and other objects of the invention are accomplished in accordance with the principles of the present invention by providing an interactive wagering  
10 system that allows users to access an interactive wagering service using a cellular telephone or handheld computing device. If desired, the interactive wagering service may be accessed using equipment such as non-cellular telephones, personal computers, and user  
15 television equipment (e.g., equipment based on set-top boxes). Users may interact with the wagering service using one platform to perform one function and a second platform to perform another function. For example, users may place wagers by submitting wagering data  
20 using one platform and may view race results using another platform.

The cellular telephone may have a display on which options may be displayed for various interactive wagering service functions. For example, options may  
25 be displayed that allow the user to access handicapping information, race results, and current odds and other racing data. Options may also be displayed that allow the user to place wagers by, e.g., selecting a desired racetrack, race, horse (or other runner), wager type  
30 (win, place, show, exacta, trifecta, etc.), wager amount, etc.

20           A transaction processing and subscription  
management system may be provided to handle wagers and  
users' accounts. Cellular telephones or handheld  
computing devices may communicate with the transaction  
processing and subscription management system using  
25 wireless communications. The transaction processing  
and subscription management system may receive racing  
data such as handicapping information and current  
racing information from a racing data collection and  
processing system. The transaction processing and  
30 subscription management system may interact with  
totalisators to handle wagers and information on  
current odds and the like. Videos related to races and

Other interactive wagering service features may be provided using the cellular telephone or handheld computing device if desired, such as advertising, product purchasing, etc.

10 description of the preferred embodiments.

FIG. 1 is a schematic diagram of an illustrative interactive wagering system in accordance with the present invention.

15                   FIG. 2 is a diagram of an illustrative  
cellular telephone in accordance with the present  
invention.

FIG. 3 is an illustrative initial menu screen that may be provided by the cellular telephone in accordance with the present invention.

FIG. 4 is an illustrative screen that may be provided by the cellular telephone to provide access to a telephone book feature in accordance with the present invention.

25           FIG. 5 is an illustrative screen that may be provided by the cellular telephone to provide access to an interactive wagering service in accordance with the present invention.

FIG. 6 is an illustrative main menu screen  
30 that may be provided by the interactive wagering

FIG. 7 is an illustrative racetrack selection screen that may be provided by the cellular telephone  
5 in accordance with the present invention.

FIG. 9 is an illustrative wager type  
 10 selection screen that may be provided by the cellular  
 telephone in accordance with the present invention.

15                FIG. 11 is an illustrative screen containing  
real-time racing data and wager confirmation  
information that may be provided by the cellular  
telephone in accordance with the present invention.

FIG. 13 is an illustrative screen that may be provided by the cellular telephone to provide the user with an opportunity to create a new wager, submit the current wager, or delete the current wager in accordance with the present invention.

FIG. 14 is an illustrative screen that may be provided by the cellular telephone to authenticate a user's identity using a personal identification number in accordance with the present invention.

FIG. 15 is an illustrative race results screen that may be provided by the cellular telephone in accordance with the present invention.

FIG. 16 is an illustrative account balance  
5 screen that may be provided by the cellular telephone in accordance with the present invention.

FIG. 17 is a flow chart of illustrative steps involved in using the interactive wagering service with the cellular telephone in accordance with the present  
10 invention.

FIG. 18 is a flow chart of illustrative steps involved in using a different platform to access the user's account information than was used to place a wager in accordance with the present invention.

FIG. 19 is an illustrative reminder that may  
15 be displayed on a cellular telephone display in accordance with the present invention.

FIG. 20 is a flow chart of illustrative steps involved in using reminders with the cellular telephone  
20 in accordance with the present invention.

FIG. 21 is a diagram showing some of the illustrative handheld devices that may be used to interact with the interactive wagering system in accordance with the present invention.

25 Detailed Description of the Preferred Embodiments

An illustrative interactive wagering system  
10 in accordance with the present invention is shown in FIG. 1. Aspects of the invention apply to various different types of wagering, but are described herein  
30 primarily in the context of interactive wagering on races (e.g., horse races) for specificity and clarity.

Races may be run at racetracks 12, which may be located at various geographic locations. Races run at the racetracks may be simulcast to television viewers. For example, simulcast videos may be provided to users with  
5 satellite receivers or to off-track betting establishments via satellite.

Real-time videos from racetracks 12 may also be provided to video production system 14 for distribution to users as part of a television wagering  
10 service (i.e., a wagering-related television channel or Internet-delivered service or the like). If desired, multiple simulcast videos may be provided to video production system 14 in real-time. Talent (e.g., commentators) for the television wagering service may  
15 be located at studio 16. Studio 16 may provide a video feed containing commentary and the like to video production system 14. Graphic overlays for the television wagering service may be added to the service at video production system 14.

20 The television wagering service may be provided by using video production system 14 to combine selected video segments from desired racing simulcasts with the video feed from studio 16 and suitable graphic overlays. If desired, video production system 14 or a  
25 separate facility may be used to reformat simulcasts from racetracks 12. For example, if racetracks 12 provide simulcasts as traditional analog television channels, video production system 14 (or a separate facility) may convert these simulcasts or portions of  
30 these simulcasts into digital signals (e.g., digital video signals) or into a different number of analog signals. Digital video signals may require less

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computer equipment 20 without traditional analog television capabilities, video production system 14 may only need to supply such digitally-compressed video signals and not analog television signals.

5           Video clips of races and other simulcast information may be provided to users in the form of a television wagering service or an interactive wagering service. If desired, race-related videos may be provided to the user by using video production system  
10 14 or other suitable equipment to route appropriate video clips from the simulcasts to the user in real time. Video clips may also be stored for later viewing. For example, one or more video servers located at racetracks 12, video production system 14,  
15 television distribution facilities 18, or other suitable locations may be used to store video clips. The stored videos may then be played back in real time or downloaded for viewing at user television equipment 22, user computer equipment 20, or user telephone  
20 equipment 32. The video clips may contain videos of races, commentary, interviews with jockeys, or any other suitable race-related information. If desired, real-time or stored videos may be provided from racetracks 12 directly to user television equipment 22,  
25 user computer equipment 20, or user telephone equipment 32 over the Internet or other suitable communications paths without involving video production system 14. Videos may also be provided by routing video signals through equipment located elsewhere in system 10. For  
30 example, videos may be routed through transaction processing and subscription management system 24.

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provide additional information or other services related to the advertisement to the user.

Product ordering services may be implemented using computer equipment at transaction processing and subscriber management system 24 to handle orders and to assist in adjusting the appropriate account of the user accordingly. Orders may be fulfilled using merchandise fulfillment facilities 34. Merchandise fulfillment facilities 34 may be operated solely to provide merchandise fulfillment or may be associated with independently-operated mail-order or on-line businesses. Similar facilities may be used to allow users to order services.

Statistical racing data such as the post times for each race, jockey names, runner names and the number of races associated with each track, handicapping information (e.g., information on past performances such as the number of wins and losses for the past year, etc.), and weather conditions at various tracks may be provided by racing data collection and processing system 28. Some of the data may be collected from racetracks 12 and some may be provided by third party information sources such as Axcis Pocket Information Network, Inc. of Santa Clara, California or other suitable data sources.

Racing data may also be provided from totalisators 30. Totalisators 30 are the computer systems that may be used to handle wagers made at the racetracks, made at off-track betting establishments, and made using interactive wagering system 10. Totalisators 30 generate wagering odds in real time. Totalisators 30 generate these odds based on

information on which wagers are being placed (e.g.,  
based on information on which wagers are being placed  
on races at racetracks 12). Totalisators 30 are  
available from companies such as Amtote International,  
5 Inc. of Hunt Valley, Maryland. Totalisators 30 may be  
associated with individual racetracks 12 or groups of  
racetracks 12. Totalisators 30 may communicate with  
one another using a communication protocol known as the  
Intertote Track System Protocol (ITSP). This allows  
10 totalisators 30 to share wagering pools. Totalisators  
30 may provide racing data including information on the  
current races at racetracks 12, the number of races  
associated with each racetrack, win, place, and show  
odds and pool totals for each horse or other runner,  
15 and exacta, trifecta, and quinella payoff predictions  
and pool totals for every possible combination of  
runners. Totalisators 30 may also provide current odds  
and other real-time racing data for other types of  
wagers. Totalisators 30 may provide the time until  
20 post time for each race.

Totalisators 30 may provide race results,  
such as the order-of-finish list for at least the first  
three positions and payoff values versus a standard  
wager amount for win, place, and show, for each runner  
25 in the finish list. Payoff values may be provided for  
winning complex wager types such as exacta, trifecta,  
quinella, pick-n (where n is the number of races  
involved in the pick-n wager), and daily double. The  
payoff values may be accompanied by a synopsis of the  
30 associated finish list.

Totalisators 30 may also provide program  
information of the type typically provided in printed

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equipment 22, user computer equipment 20, or user telephone equipment 32 using the Internet or other suitable communications paths.

User telephone equipment 32 may be a conventional telephone, a cordless telephone, a cellular telephone or other portable wireless telephone, or any other suitable telephone equipment. Users at user television equipment 22 and user computer equipment 20 may view information on the racing data on a television or other suitable monitor. Users at user telephone equipment 32 may listen to racing data using an interactive voice system. User telephone equipment 32 may be based on cellular telephones with displays. Users may view racing data displayed on such displays.

15           Users who wish to place wagers may establish  
an account at transaction processing and subscription  
management system 24. An account may also be  
established at one of totalisators 30. The user and  
the interactive wagering services may have their own  
20 bank accounts at financial institutions 38. A user may  
set up an account electronically by using user  
television equipment 22, user computer equipment 20, or  
user telephone equipment 32 to interact with the  
subscriber management functions of transaction  
25 processing and subscription management system 24. If  
desired, accounts may be established with the  
interactive wagering service with the assistance of  
customer service representatives at customer service  
facility 36. Customer service facility 36 may be at  
30 the same location as transaction processing and  
subscription management system 24, may be part of  
system 24, or may be located remote from system 24.

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wagering service and provides funds with a credit card or funds from the user's bank account. The interactive wagering service sets up an account for the user at transaction processing and subscription management system 24 and directs one of totalisators 30 to set up a new account for the user at the totalisator. The totalisator is also directed to credit the user's account to reflect the amount of funds provided by the user. After the user places a wager and wins or loses, the totalisator adjusts the user's totalisator account to reflect the outcome of the wager. The totalisator may periodically inform the interactive wagering service of the adjusted balance in the user's account. This may be accomplished using any suitable technique (e.g., periodically, continuously, on-request, etc.). For example, reports may be collected periodically (e.g., once a day in an end-of-day report) and provided to the interactive wagering service to reconcile the account balances at transaction processing and subscription management system 24 with the account balances at totalisators 30.

If the user makes a balance inquiry, the inquiry may be passed to the appropriate totalisator by transaction processing and subscription management system 24. If the user is charged a fee for subscribing to the service, the service may debit the fee from the user's account at the transaction processing and subscription management system 24.

The accounts at totalisators 30 and transaction processing and subscription management system 24 are typically maintained separately, because the business entities that operate totalisators 30 and

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5 television equipment, user computer equipment, or user  
telephone equipment may transmit wagering data for the  
wager to transaction processing and subscription  
management system 24.

Users with telephones may also interact with the service using an interactive voice response system located at transaction processing and subscription management system 24. The interactive voice response system may present menu options to the user in the form of audio prompts (e.g., "press 1 to select a \$2 wager amount," etc.). The user may interact with the service by pressing the corresponding buttons on a touch tone telephone. User telephone equipment 32 that is based on cellular telephones allows the user to interact with the wagering service in this way. User telephone equipment 32 that is based on cellular telephones with messaging and display capabilities also allows the user to interact visually with the interactive wagering service.

The components of system 10 may be interconnected using various communications paths 44. Communications paths 44 may include satellite paths, coaxial cable paths, fiber-optic paths, twisted pair paths, other wire or cable-based links, wireless paths through free space, or any other suitable paths or combination of such paths. Communications over paths 44 may involve analog transmissions, digital transmissions, wireless transmissions, microwave

transmissions, radio-frequency transmissions, optical transmissions, audio transmissions, or any other suitable type of transmissions or combination of such transmissions. Communications may involve Internet  
5 transmissions, private network transmissions, packet-based transmissions, television channel transmissions, transmissions in the vertical blanking interval of a television channel or on a television sideband, MPEG transmissions, etc. Communications may involve one-way  
10 or two-way wireless pager or other messaging transmissions. Communications paths 44 may include cable connected to cable modems, digital subscriber lines, integrated services digital network (ISDN) lines, or any other suitable paths. Examples of  
15 suitable communications paths are described below. Those examples are, however, merely illustrative. Any of the communications path arrangements described above or other suitable arrangements may be used if desired.

Communications paths that carry video and  
20 particularly uncompressed analog video or lightly-compressed or full-screen digital video generally use more bandwidth than communications paths that carry only data or that carry partial-screen digital video. For example, if it is desired to transmit high-quality  
25 simulcasts of races from racetracks 12 to video production system 14, analog or digital videos may be transmitted from racetracks 12 to video production system 14 over path 44a using satellite links. Video may be transmitted from studio 16 to video production  
30 system 14 over path 44b using a satellite link or a high-speed terrestrial path such as a fiber-optic path. Studio 16 may also be located at the same site as video

production system 14, thereby avoiding the need for a long-haul transmission path. Videos may be transmitted from video production system 14 to user computer equipment 20 over path 14c using a modem link (using, 5 for example, a digital subscriber line, a telephone network link, a wireless link etc.) The modem link may be made over a private network.

A user with a cable modem may connect a personal computer or other such user computer equipment 10 20 to an associated cable system headend using path 44d. (The headend in such an arrangement would be one of the television distribution facilities 18 shown in FIG. 1.) The user may then receive videos from the headend via cable modem. Videos may be provided to the 15 headend over path 44e using a network link, fiber optic links, cable links, microwave links, satellite links, etc. A user with a set-top box or similar device (shown in FIG. 1 as user television equipment 22) may also receive videos from a cable system headend using a 20 cable modem or other such communications device over path 44f. In addition, a user with user television equipment may receive videos over the Internet or a private network using a telephone-based modem or other such communications device using path 44g. In a system 25 with distributed processing, interactive wagering services may be provided using a television distribution facility 18 that includes equipment that supplements or replaces at least some of the equipment at transaction processing and subscription management 30 system 24.

If desired, user television equipment 22 or user computer equipment 20 may receive analog or

digital videos from an associated television distribution facility over the communications paths normally used to distribute television programming (e.g., paths 44f and 44d). For example, videos may be  
5 received as part of a dedicated interactive wagering service television channel. If videos are provided as digital signals (e.g., MPEG signals), 10 or more digital videos may be carried on a single analog channel (or one digital video may be carried on one-  
10 tenth of the bandwidth of an analog channel). If the videos are not full-screen videos, even more videos may be simultaneously provided without a loss of image quality.

Racing videos may be provided to user  
15 telephone equipment 32 over a partially-wireless telephone Internet link or other telephone link using path 44n.

If desired, racing data may accompany the racing videos along any of these paths. Moreover,  
20 racing videos may be provided by routing them directly from racetracks 12 to user television equipment 22, user computer equipment 20 (e.g., over the Internet or a private network, etc.), or user telephone equipment 32. Racing videos may also be provided by routing them  
25 through transaction processing and subscription management system 24. If a cellular telephone or portable computing device has sufficient display capabilities to support moving images, racing videos may be displayed. Such videos may be provided using  
30 any suitable path, such as a direct path from racetracks 12, a path through video production system 14 or other suitable video processing equipment,

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links. Data from paths such as path 44j may be routed to paths such as paths 44f and 44d directly by associated television distribution facilities 18, or may be buffered at television distribution facilities 18 if desired. Paths 44f and 44d may include coaxial cable and use of paths 44f and 44d may involve the use of cable modems or the like. If data is provided over path 44j and path 44f or path 44d using an Internet protocol, a web browser or similar application running on user television equipment 22 or user computer equipment 20 may be used to access the data. Such application software may also be used to view videos and may be used on other platforms (e.g., advanced cellular telephones) if desired.

The communications paths 44k that are used to connect various other components of the system typically do not carry high-bandwidth video signals. Accordingly, paths 44k may be telephone-like paths that are part of the Internet or a private network. Such paths and various other paths 44 may be dedicated connections for security, reliability, and economy.

User telephone equipment 32 may receive information for the wagering service via path 44m. If user telephone equipment 32 is a standard (non-cellular) telephone, such information may be in the form of audio prompts ("press 1 to place a wager") and audio racing data ("the current win odds for horse 2 are 5-1"). Transaction data processing and subscription management system 24 may contain interactive voice response equipment that provides such information to the user and that responds to touch-tone



If user telephone equipment 32 is a cellular telephone, racing data and other information for the interactive wagering service may be provided to the user by using a cellular wireless connection as part of path 44m. Users with cellular telephones may be provided with audio prompts using an interactive voice response system located at transaction processing and subscription management system 24 to which the users may respond by pressing cellular telephone buttons to generate touch-tone signals.

Racing data and other information for the interactive wagering service may be provided to cellular telephones in the form of alphanumeric messages. Such messages may be transmitted to the user by using paging or other alphanumeric messaging formats or any other suitable data communications scheme. If desired, data may be provided to the cellular telephones over the voice channel and decoded by the cellular telephone using modem circuitry or other suitable circuitry. Data may also be provided using any other suitable cellular or wireless path. Regardless of the way in which racing data and other information for the interactive wagering service are provided to the cellular telephone, such information may be provided to the user by displaying it on the cellular telephone display screen or by presenting it in audible form through the speaker of the cellular telephone.

Racing data and other interactive wagering service information for the users may be provided in

one or more continuous data streams, may be provided periodically (e.g., once per hour or once per day), or may be provided using a client-server arrangement in which data is requested by a client processor (e.g.,  
5 user television equipment 22, user computer equipment 20, user telephone equipment 32, or any other such equipment) from a server (e.g., a server implemented using computer equipment 26 at transaction processing and subscription management system 24 or computer  
10 equipment at another suitable location. Videos may also be provided using any of these techniques.

A return communications path between the user and the interactive wagering service may be used to allow the user to place wagers and otherwise interact  
15 with the interactive wagering service. For example, a user with a standard telephone or a cellular telephone may interact with the service by pressing touch-tone keys on the telephone in response to audio prompts provided by an interactive voice response system at  
20 transaction processing and subscription management system 24. If desired, users may call customer service representatives at customer service facility 36 and place wagers with manual assistance. The user of a cellular telephone may interact with the wagering  
25 service by selecting menu options and otherwise interacting with information displayed on the cellular telephone. When a selection is made, software implemented on the telephone may be used to assist the user in transmitting appropriate data (e.g., wagering  
30 data) to the wagering service. Such data may be transmitted using any suitable technique. For example, data may be transmitted using a wireless data link that

If desired, the return communications path between the user and the interactive wagering service may use paging transmissions. For example, a cellular telephone or other handheld device with two-way paging capabilities may be used to place wagers and otherwise interact with the interactive wagering service using paging transmissions.

If desired, the user may send data to the service at transaction processing and subscription

management system 24 using different paths than those used to receive data from transaction processing and subscription management system 24. For example, racing data may be received at user television equipment 22 via paths 44j and 44f, whereas data may be sent by the user from user television equipment 22 to transaction processing and subscription management system 24 using path 44i, etc. Moreover, the paths used to receive certain video information may be different from those used to receive racing data. For example, user television equipment 22 may receive racing videos using path 44f, but may receive racing data using path 44i. These examples are merely illustrative. Any suitable combination of paths may be used to distribute racing data and other information for the interactive wagering service, any suitable combination of paths may be used to receive videos, and any suitable combination of paths may be used to send data to the wagering service.

If desired, the user may interact with the wagering service using more than one platform. For example, the user may place a wager using a cellular telephone while the user is driving home. When the user arrives home, the user may determine the outcome of the wager by watching a video of the race on user television equipment. Later in the day, the user may check the user's account balance using a personal computer. This is merely an illustrative example. The various wagering platforms may be used in any suitable combination.

Although system 10 has been described in the context of a system that supports multiple wagering platforms, system 10 may support fewer platforms if

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5 configured so that it does not support personal  
computer wagering, wagering with standard telephones,  
or wagering with user television equipment. The system  
may support cellular telephones and/or handheld  
computing devices such as personal digital assistants,  
10 palm-sized computers, etc. in combination with any  
other suitable platform.

An illustrative cellular telephone 46 with which the user may use the interactive wagering service is shown in FIG. 2. Software for the interactive wagering service may be used at transaction processing and subscription management system 24 and each of the other components shown in FIG. 1. A portion of the software that is used to implement the interactive wagering service is resident on cellular telephone 46. Cellular telephone 46 may have a memory for storing software instructions and a processor for executing those instructions. If desired, at least some of the interactive wagering features described herein may be implemented using a handheld computing device or personal digital assistant such as the Palm V or Palm VII devices of Palm Computing Inc. (a 3Com company) of Mountain View, California instead of a cellular telephone. For clarity and simplicity, however, the invention will be described primarily in connection with cellular telephones.

Cellular telephone 46 may have an antenna 48 to support wireless communications with transaction

Communications between telephone 46 and system 24 may use communications path 44m of FIG. 1. Path 44m may include both a wireless portion (e.g., the link from

5 cellular telephone 46 to a nearby antenna connected to  
the cellular network) and a non-wireless portion (e.g.,  
non-wireless links in the public telephone network).

A power switch 50 (FIG. 2) may be used to turn on and off cellular telephone 46. A speaker 52 allows the user to hear conversations and to hear audio prompts from transaction processing and subscription management system 24. A microphone 54 allows the user to converse with others. Display 56 may be a liquid crystal display (black and white or color), a plasma display, a light-emitting diode display, an active matrix display, or any other suitable type of small display screen. Keys 58 allow the user to enter inputs. Numeric keys 60 (including the star and pound key) allow the user to respond to interactive voice response system prompts such as "press 3 to select race 3" and allow the user to enter numbers to select numerically identified on-screen menu options and the like that are displayed on display 56. If desired, some of the numeric keys 60 may perform secondary functions if, for example, they are pressed and held for at least a predetermined length of time. Clear key 62 may be used to clear characters from display 56. If the user presses and holds clear key 62, the user may be taken back to the initial screen displayed on display 56 upon power up. Navigation key 64 may be used to access menus, make telephone calls, etc. Scroll keys 66 may be used to scroll through menus and

to scroll through other items presented on display screen 56.

As shown in FIG. 3, when cellular telephone 46 is initially turned on, a screen 68 having a signal strength indicator 70 and a battery level indicator 72 may be presented to the user on display 56 (FIG. 2). Screen 68 of FIG. 3 may be provided with "MENU" label 74. Pressing the down scroll key 66 (FIG. 2) directs cellular telephone 46 (FIG. 2) to display screen 68 of FIG. 4, which includes a menu option label 75 and corresponding icon 76 for a phone book service. As shown in FIG. 5, if the user subsequently presses down scroll key 66, the cellular telephone 46 may display a screen containing the name 78 and logo 80 of a television wagering service or the like. If the user selects this option (e.g., by pressing navigation key 64 of FIG. 2), the user may be presented with a menu, such as the menu of screen 68 of FIG. 6.

As shown in FIG. 6, telephone 46 may provide the user with an opportunity to select a desired menu item by moving highlight region 82 with scroll keys 66 (FIG. 2). Pressing the up scroll key 66 directs the telephone to scroll upwards through the menu items 84. Pressing the down scroll key directs the telephone to scroll downwards through menu items 84. When the user has highlighted a desired menu item 84 ("build a bet" in the example of FIG. 6), the user may select that item by pressing navigation key 64 (for example).

The menu of FIG. 6, which is entitled "main menu," illustrates how the user may be provided with an opportunity to select from an option to generate wagers ("build a bet"), an option to view race results

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("results"), and a menu option to access handicapping information (handicap). These options are illustrative. Any suitable options may be used to provide the user with additional ways in which to use the interactive wagering service.

If the user selects the build a bet option, the telephone may present the user with screen 68 of FIG. 7 (entitled "build a bet"). Screen 68 of FIG. 7 provides the user with an opportunity to select a track of interest. FIG. 7 shows how the user may use highlight region 82 to select from tracks 86. Track name 86a ("Bay Mdws.") is abbreviated, because the unabbreviated track name ("Bay Meadows") is too large to fit in screen 68 (in this illustrative example). Track names such as track name 86a may be abbreviated using a locally-implemented abbreviation routine. If desired, abbreviated track names may be stored by transaction processing and subscriber management system 24 or other suitable system and provided to cellular telephone 46 when needed.

Selecting the option for the track "Aqueduct" in the menu screen of FIG. 7 may direct the telephone 46 to display information on the races scheduled to take place at the Aqueduct racetrack, as shown in FIG. 8. If desired, information on the scheduled post times of each race may be provided. In the example of FIG. 8, the user has placed highlight region 82 on top of the option for race 2. Selecting race 2 in FIG. 8 may direct telephone 46 to display screen 68 of FIG. 9, which provides the user with an opportunity to select a desired wager type. In the menu of FIG. 9 and the other menus provided by the telephone, the user may be



5 highlight region 82 to the top or bottom of screen 68 and pressing the appropriate scroll key 66. If desired, the user may be provided with an opportunity to scroll off of the screen to the right or left (e.g., to pan to see the end of a long menu item, etc.).

15 After the runner has been selected, the user may be provided with a screen such as screen 68 of FIG. 11 that confirms the details of the wager that has been built by the user. Screen 68 of FIG. 11 illustrates how the user may be provided with real-time racing data  
20 88 (e.g., the current odds for the horse Celtic to place in race 2 at the Aqueduct track at 12:30 PM). If desired, racing data (either real-time racing data, statistical racing data or both) may be accessed through other suitable menus or options. For example,  
25 the user may obtain handicapping data by selecting an option such as handicap menu option 84 of FIG. 6.

If the user selects continue option 90 of FIG. 11, the user may be presented with a screen such

as screen 68 of FIG. 12 in which the user is provided with an opportunity to select a wager amount. After selecting a desired wager amount, the user may be presented with a screen such as screen 68 of FIG. 13.

5 Screen 68 of FIG. 13 may include wager confirmation information 92 on the details of the current wager that the user has just created. Screen 68 of FIG. 13 may also include various options 94. For example, an option such as option 94a may be used to provide the  
10 user with an opportunity to create a new wager. An option such as option 94b may be used to provide the user with an opportunity to send the current wager to transaction processing and subscription management system 24. An option such as option 94c may be used to  
15 provide the user with an opportunity to delete the current wager. These options are merely illustrative. Various other suitable arrangement may be used to provide the user with wager management functions if desired.

20 If the user selects send option 94b of FIG. 13, the user may be presented with a screen such as screen 68 of FIG. 14. Screen 68 of FIG. 14 provides the user with an opportunity to enter a personal identification number (PIN). The PIN, which may be  
25 established during the enrollment process, may be used as a security feature to prevent unauthorized parties from placing wagers. PIN validation may be one-step or multi-step process, and may involve local authorization steps (implemented locally on the cellular telephone)  
30 and remote authorization steps (implemented using transaction processing and subscription management system 24 or other suitable equipment).

If the PIN entered using screen 68 of FIG. 14 is valid, the user's wager is processed. For example, the wager may be accepted by transaction processing and subscription management system 24 and passed to the  
5 totalisator 30 at which the user has an account. When the race on which the wager was placed has been run, the totalisator 30 adjusts the user's account balance accordingly. The totalisator 30 may update the user's account status at transaction processing and  
10 subscription management system 24 using an end-of-day report or other suitable arrangement.

The user may view race results on display 56 of FIG. 2 using any suitable visual display arrangement. An example is shown in FIG. 15. In  
15 screen 68 of FIG. 15, the user is provided with information 96 on the top three finishers in race 2. Race results may include payoffs for a standard wager for win, place, and show wagers. Race results may also include payoff information for other wager types such  
20 as exactas, trifectas, daily doubles, pick three, pick four, etc. This information is merely illustrative. Any suitable race results information may be provided if desired. The user may be provided with options to access race results for various tracks, races, runners,  
25 etc. Race results may include text, graphics, or video (e.g., race videos).

Information on race results may be provided to cellular telephone 46 as a real-time data stream, in a periodic data stream, or on-demand, when requested by  
30 telephone 46. Results may be provided using any suitable data format, such as e-mail, modem

transmissions, paging or other messages, Internet-type communications, etc.

As shown in FIG. 16, the user may be provided with a screen such as screen 68 when the user requests account balance information 98. Account balance inquiries may be handled by the totalisator 30 at which the user maintains an account, by transaction processing and subscription management system 24, or by any other suitable facility.

Steps involved in using the cellular telephone wagering service are shown in FIG. 17. At step 100, the user may be provided with an opportunity to access the interactive wagering service using a cellular telephone such as telephone 46 of FIG. 1. For example, the telephone may be used to display options (see, e.g., screen 68 of FIG. 5) that allow the user to view various interactive wagering screens.

Racing data may be displayed for the user on a display such as display 56 of FIG. 2 at step 102. Racing data may be displayed as text, graphics, and video (with or without audio). Racing data may include historical racing data (i.e., statistical racing data such as handicapping information), real-time data (e.g., current odds) or any other suitable racing data. The user may also be provided with an opportunity to place a wager with the cellular telephone at step 102. For example, the user may be provided with an opportunity to select tracks, races, wager types, runners, wager amounts, etc. from options displayed on display 56.

At step 104, the user's account may be adjusted to reflect the outcome of any wagers that the

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user may have placed and to display the race results on the cellular telephone. Race results may include the name of the runner, the amount wagered, the payoff amount and other such wager results, etc. Race results  
5 may also include the position of the runners and other such information. Race results may be provided in real time or may be provided later, after the race has finished.

Wagers may be placed using one platform and  
10 race results viewed using another platform. For example, wagers may be placed using a set-top box, a personal computer, or a non-cellular telephone and race results may be presented to the user at a cellular telephone such as cellular telephone 46 or a handheld  
15 computing device. This is illustrated as step 106 of FIG. 18. Account information may also be accessed using cross-platform arrangements (see step 108). These examples are merely illustrative, and any suitable cross-platform display of race results may be  
20 made if desired.

The user may set a reminder for a race. This allows the user to be alerted when the race is about to take place, so that the user does not miss the race. Reminders may be set and executed on the same platform.  
25 If desired, reminders may be set using one platform and executed on another platform. For example, the user may wish to place a wager for a particular race using cellular telephone 46 when the user is on the road. Later, when the user is at home and has access to  
30 television equipment, the user may be sent an e-mail reminder that the desired race is about to begin. E-mail reminders or other suitable reminder messages or

A reminder may be presented to the user at user television equipment 22 by displaying a reminder

Any suitable technique for setting a reminder may be used. For example, the user may be provided with a prompt or option on screen 56 of FIG. 2 when the user places a wager. The prompt may ask the user whether the user wishes to set a reminder. If the user sets a reminder, a reminder may be displayed for the user just before the race begins (e.g., 5-10 minutes before the scheduled race time or other suitable interval). An illustrative reminder is shown in FIG. 19. In the example of FIG. 19, the user has set a reminder for the horse "Vicenza." Vicenza is scheduled to run in race 2 at 12:30 PM at the Gulfstream track. Telephone 46 may display a reminder screen such as screen 68 of FIG. 19 at the appropriate time to remind the user of the event. The user may be provided with reminders or reminded of their presence by e-mail, paging messages, other alphanumeric messages, pop-up messages or icons, audible tones, etc. If desired, the system may use automatic dialing equipment located at transaction processing and subscription management system 24 or other suitable location to place a telephone call to the user's cellular telephone and provide an audio reminder message. The audio reminder

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5 tracks and races, and may be used to create and place  
wagers. These wireless devices may also be used to  
receive reminders such as reminders for upcoming races.

The foregoing is merely illustrative of the principles of this invention and various modifications  
10 can be made by those skilled in the art without departing from the scope and spirit of the invention.